

In the Claims:

1. (Currently Amended) A bone plate having a thickness extending from ~~comprising~~ a bone-contacting bottom side and to a top side with at least one complex aperture extending through the plate thickness and comprised of at least two overlapping holes having an offset of a given distance between centers thereof, wherein any two immediately adjacent overlapping holes provide ~~the complex aperture with~~ comprise a compression ramp extending from the top side of the plate downwardly and inwardly part way through the plate thickness to an hourglass shape in plan view and wherein each overlapping hole has an upper portion extending from the top side part way through a thickness of the bone plate and a threaded lower portion having an hourglass shape extending from where the upper portion ends at the hourglass shape to the bottom side of the bone plate with threaded surfaces of the overlapping holes meeting each other at an overlap forming the hourglass shape, the upper portion having a frusto-conical shape in cross-section and the lower portion being a threaded surface adapted to lock with threads of a corresponding bone screw in one or the other of the overlapping holes, but not both.

2. (Original) The bone plate of claim 1, wherein the overlapping holes are formed normal to the top side of the plate.

3. (Original) The bone plate of claim 1, wherein the overlapping holes are formed at an angle offset from normal to the top side of the plate.

4. (Original) The bone plate of claim 1, wherein at least one of the overlapping holes is formed normal to the top side of the plate and at least a second of the overlapping holes is formed at an angle offset from normal to the top side of the plate.

5. (Cancelled)

6. (Previously Presented) The bone plate of claim 1, wherein the complex aperture further comprises multiple sets of overlapping holes.

7. (Original) The bone plate of claim 6, wherein the overlapping holes are formed normal to the top side of the plate.

8. (Currently Amended) The bone plate of claim 6, wherein at least one of the overlapping holes is ~~are~~ formed at an angle offset from normal to the top side of the plate.

9. (Original) The bone plate of claim 6, wherein at least one of the overlapping holes is formed normal to the top side of the plate and at least a second of the overlapping holes is formed at an angle offset from normal to the top side of the plate.

10. (Previously Presented) The bone plate of claim 6, wherein the multiple sets of overlapping holes are aligned along a longitudinal axis.

11. (Previously Presented) The bone plate of claim 6, wherein the multiple sets of overlapping holes are positioned in a staggered arrangement from a longitudinal axis.

12. (Original) The bone plate of claim 11, wherein the overlapping holes are formed normal to the top side of the plate.

13. (Currently Amended) The bone plate of claim 11, wherein at least one of the overlapping holes is ~~are~~ formed at an angle offset from normal to the top side of the plate.

14. (Original) The bone plate of claim 11, wherein at least one of the overlapping holes is formed normal to the top side of the plate and at least a second of the overlapping holes is formed at an angle offset from normal to the top side of the plate.

15. to 18. (Cancelled)

19. (Previously Presented) The bone plate of claim 1 wherein the at least two overlapping holes are adapted to receive a bone screw with a head and a bone-engaging thread.

20. (Currently Amended) The ~~bone plate kit~~ kit of claim 32 ~~19~~, wherein ~~the~~ a head of the bone screw has a plate engaging thread.

21. (Previously Presented) The bone plate of claim 19, wherein the at least two overlapping holes are formed normal to the top side of the plate.

22. (Currently Amended) The bone plate of claim 19, wherein at least one of the at least two overlapping holes ~~are~~ is formed at an angle offset from normal to the top side of the plate.

23. (Original) The bone plate of claim 19, wherein at least one of the overlapping holes is formed normal to the top side of the plate and at least a second of the overlapping holes is formed at an angle offset from normal to the top side of the plate.

24. to 27. (Cancelled)

28. (Previously Presented) The bone plate of claim 1, wherein the complex aperture is comprised of three overlapping holes.

29. (Original) The bone plate of claim 28, wherein the overlapping holes are formed normal to the top side of the plate.

30. (Currently Amended) The bone plate of claim 28, wherein at least one of the overlapping holes are is formed at an angle offset from normal to the top side of the plate.

31. (Original) The bone plate of claim 28, wherein at least one of the overlapping holes is formed normal to the top side of the plate and at least a second of the overlapping holes is formed at an angle offset from normal to the top side of the plate.

32. (Previously Presented) An orthopaedic kit including:  
a. a bone plate according to claim 1; and  
b. at least one bone screw engageable with the bone plate.

33. (Previously Presented) The kit of claim 32, further comprising a drill guide having a main drill guide surface and opposite end portions, one end portion of which is securely engageable with the threaded surface of the lower portion of each overlapping hole in the bone plate so as to securely hold the drill guide in a desired orientation with respect to the bone plate for stabilizing a drill used in an orthopaedic procedure.

34. to 36. (Cancelled)

37. (Currently Amended) A bone plate with a longitudinal axis, a bone-contacting bottom side having a total surface area and a top side with at least one complex aperture extending through the plate thickness and comprised of a plurality of threaded apertures which communicate through the plate from the top side to the bottom side, at least two ~~of the apertures comprising a set of~~ overlapping holes having an offset of a given distance between centers thereof ~~and oriented along the longitudinal axis for securing the plate to a long bone,~~ wherein any two immediately adjacent overlapping holes comprise a compression ramp extending from the top side of the plate downwardly and inwardly part way through the plate thickness to provide the ~~complex aperture with an hourglass shape in plan view and wherein each of the overlapping holes has an upper portion extending from the top side part-way through a thickness of the bone plate and a threaded lower portion having an hourglass shape extending from where the upper portion ends at the hourglass shape to the bottom side of the bone plate with threaded surfaces of the overlapping holes meeting each other at an overlap forming the hourglass shape, the upper portion having a frusto-conical shape in cross-section devoid of threads and the lower portion being a threaded surface adapted to lock with threads of a corresponding bone~~

screw in one or the other of the overlapping holes, but not both and wherein the bottom side includes recesses located between adjacent threaded apertures and which are substantially located exclusively on the bottom side, the recesses being sized so as to define a cross-section transverse to the longitudinal axis and across the recesses that ensures that a yield strength in bending across the recesses is less than across a threaded aperture.

38. (Previously Presented) The bone plate of claim 37, wherein the recesses are substantially rectangular in form.

39. (Original) The bone plate of claim 37, wherein the recesses are equally spaced along the longitudinal axis.

40. (Currently Amended) The bone plate of claim 37, wherein ~~the~~ a total area removed from the bottom side due to the recesses is less than or equal to 50% of the total surface area of the bottom side.

41. (Original) The bone plate of claim 37, wherein the recesses are transverse and extend across the width of the bone plate.

42. (Original) The bone plate of claim 37, wherein the recesses extend from a side of the bone plate transversely toward the longitudinal axis but do not cross the axis.

43. (Previously Presented) The bone plate of claim 1 wherein the threaded surface is a multi-faceted surface.

44. (Currently Amended) The bone plate of claim ~~[[1]]~~ 43 wherein the multi-faceted surface is a coaxial series of annular grooves.

45. (New) The bone plate of claim 1 wherein the compression ramp extends from an oval shape at the top side of the plate downwardly and inwardly to the threaded lower portion.

46. (New) The bone plate of claim 37 wherein the compression ramp extends from an oval shape at the top side of the plate downwardly and inwardly to the threaded lower portion.

47. (New) A bone plate having a thickness extending from a bone-contacting bottom side to a top side with at least two complex aperture extending through the plate thickness, each complex aperture comprised of at least two overlapping holes having an offset of a given distance between centers thereof, wherein any two immediately adjacent overlapping holes comprise a compression ramp extending from the top side of the plate downwardly and inwardly part way through the plate thickness to a threaded lower portion having an hourglass shape extending from where the upper portion ends at the hourglass shape to the bottom side of the bone plate with threaded surfaces of the overlapping holes meeting each other at an overlap forming the hourglass shape, the lower portion being adapted to lock with threads of a corresponding bone screw in one or the other of the overlapping holes, but not both.

48. (New) A bone plate having a thickness extending from a bone-contacting bottom side to a top side with at least one complex aperture extending through the plate thickness and comprised of at least two overlapping holes having an offset of a given distance between centers thereof, wherein any two immediately adjacent overlapping holes comprise a compression ramp extending from the top side of the plate downwardly and inwardly part way through the plate thickness to a threaded lower

portion having an hourglass shape extending from where the upper portion ends at the hourglass shape to the bottom side of the bone plate with threaded surfaces of the overlapping holes meeting each other at an overlap forming the hourglass shape, the lower portion being adapted to lock with threads of a corresponding bone screw in one or the other of the overlapping holes, but not both, and wherein the overlapping holes further having centers staggered about the longitudinal axis of the plate.

49. (New) A bone plate having a thickness extending from a bone-contacting bottom side to a top side with at least one complex aperture extending through the plate thickness, wherein the complex aperture is comprised of a compression ramp having an oval shape at the top side of the plate with the compression ramp extending from the top side downwardly and inwardly part way through the plate thickness to a lower portion having an hourglass shape extending through the bottom side and formed by two immediately adjacent overlapping threaded holes with an offset of a given distance.